

REMARKS

Claims 1-13 and 16 are currently pending in the present application, among them claim 1 is the only independent claim.

Claims 14 and 15 have been cancelled without prejudice.

Claim 1 has been amended to recite “an isolated polynucleotide comprising a nucleotide sequence comprising the nucleotide numbers 2937 to 3776 of SEQ ID NO: 1.” Claim 2 has been amended to more particularly claim the invention. Claims 9 and 13 have been amended for clarity. New claim 16 is added to claim the invention at various scopes.

The amendments are supported by the specification and claims as originally filed. For example, support for the amendments to claim 1 and new claim 16 is found at least from Examples 2 and 6. Support for the amendment to claim 2 is found at least from original claim 2. The amendments to claims 9 and 13 are formal in nature and are supported by at least original claims 9 and 13, respectively.

Because the amendments do not add any new matter to the application, entry of the amendments is respectfully requested.

Claim Rejection Under 35 U.S.C. §101

The Office Action contains a rejection of claims 1 and 2 under 35 U.S.C. 101, because the claimed invention is directed to non-statutory subject matter.

Upon entry of the present Amendment, claims 1 and 2 both recite “isolated polynucleotide,” a patentable subject matter.

Accordingly, reconsideration and withdrawal of the rejection of claims 1 and 2 under 35 U.S.C. §101 are respectfully requested.

Claim Rejection Under 35 U.S.C. §112

The Office Action contains a rejection of claims 4, 5, 8, 9 and 13 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Claim 1 has been amended to recite “an isolated polynucleotide comprising a nucleotide sequence comprising the nucleotide numbers 2937 to 3776 of SEQ ID NO: 1.” The application provides detailed description on the making and using of at least 10

different species of the genus of isolated polynucleotide encompassed by claim 1, see e.g., Examples 2 and 6, and other Examples. In view of the disclosure, a person of ordinary skill in the art would readily conclude that Applicants were in possession of the genus of isolated polynucleotide recited in claim 1, and the related plasmid, transformed cell, method and kit recited in claims 4, 5, 8, 9 and 13, respectively, at the time the application was filed.

Accordingly, reconsideration and withdrawal of the rejection of claims 4, 5, 8, 9 and 13 under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement are respectfully requested.

Claim Rejection Under 35 U.S.C. §112

The Office Action contains a rejection of claims 1-3, 6 and 7 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

Claim 1 has been amended to recite “an isolated polynucleotide comprising a nucleotide sequence comprising the nucleotide numbers 2937 to 3776 of SEQ ID NO: 1.” As pointed out by the Examiner, the specification is enabling for a promoter that consists of the polynucleotide sequence shown in SEQ ID NO: 1. Applicants respectfully submit that the specification is also enabling for other isolated polynucleotide sequences comprising the nucleotide numbers 2937 to 3776 of SEQ ID NO: 1. See, e.g., the 10 different Gm1 promoter reporter vectors illustrated in Examples 2 and 6, and their application illustrated in other Examples. In view of the disclosure, a person of ordinary skill in the art would be able to make and use an isolated polynucleotide recited in claims 1 and 2, and the related plasmid and transformed cell recited in claims 3, 6 and 7, all without undue experimentation.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-3, 6 and 7 under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement are respectfully requested.

Claim Rejection Under 35 U.S.C. §102

The Office Action contains a rejection of claims 1-3, 6 and 7 as being anticipated by Dunn et al. (EST result 1, Accession number AZ660697, Dec. 14, 2000) (“Dunn”).

Applicants respectfully submit that Dunn does not anticipate claim 1 and its dependent claims 2, 3, 6 and 7, at least because Dunn does not teach or suggest an isolated polynucleotide as that recited in claim 1. As illustrated in the sequence comparison result shown in Exhibit A attached to this Amendment, Dunn disclosed a polynucleotide that is 100% identical to the nucleotide numbers **929 to 1577** of SEQ ID NO:1. It contains no teaching or suggestion on an isolated polynucleotide comprising the nucleotide numbers **2937 to 3776** of SEQ ID NO: 1 recited in the present claims.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-3, 6 and 7 under 35 U.S.C. 102 as being anticipated by Dunn are respectfully requested.

The Office Action also contains a rejection of claims 1-8 as being anticipated by Isak (GenEmbl result 5, Locus and Accession number AC140207, Nov. 27, 2003) ("Isak").

Applicants respectfully submit that Isak does not anticipate claim 1 and its dependent claims 2-8, at least because Isak does not teach or suggest an isolated polynucleotide as that recited in claim 1. As illustrated in the sequence comparison result shown in Exhibit B attached to this Amendment, Isak disclosed a large DNA sequence (i.e., more than 185 kb long) that is **97.2%** identical to the nucleotide numbers **1 to 3871** of SEQ ID NO:1. The sequence of Isak contains deletion, insertions and point mutations in the portion of sequence that aligns with the presently claimed polynucleotide. For example, the sequence of Isak contains a deletion of the nucleotide numbers **2149-2166** of SEQ ID NO:1, multiple point mutations in the region of the nucleotide numbers **2938-2978** of SEQ ID NO:1, etc. Thus, the sequence of Isak does not anticipate the presently claimed isolated polynucleotide comprising the nucleotide numbers **2937 to 3776** of SEQ ID NO: 1.

Applicants respectfully submit that the sequence of Isak also does not render the presently claimed sequence obvious, at least because in view of Isak, one skilled in the art would not be motivated to make the deletion, insertions and point mutations, e.g., the multiple point mutations in the region of the nucleotide numbers **2938-2978** of SEQ ID NO:1, with a reasonable expectation that the resulting sequence would have the Gm1 promoter activity.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-8 under 35 U.S.C. 102 as being anticipated by Isak are respectfully requested.

The Office Action further contains a rejection of claims 1-8 and 13 as being anticipated by Holtzman et al. (J. Biol. Chem. 266, 3, 1763-1771, 1991) ("Holtzman").

Applicants respectfully submit that Holtzman does not anticipate claim 1 and its dependent claims 2-8 and 13 at least because Holtzman does not teach or suggest an isolated polynucleotide as that recited in claim 1. As illustrated in the sequence comparison result shown in Exhibit C attached to this Amendment, the sequences disclosed in Holtzman do not share significant homology with SEQ ID NO:1 recited in the present claims. Thus, sequences of Holtzman do not anticipate or render it obvious the presently claimed isolated polynucleotide comprising the nucleotide numbers **2937 to 3776** of SEQ ID NO: 1.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-8 and 13 under 35 U.S.C. 102 as being anticipated by Holtzman are respectfully requested.

For reasons similar to those discussed above, Applicants respectfully submit that new claim 16 is also patentable.

Rejoinder of Claims 10-12

Upon finding claim 1 and its dependent claims 2-9 and 13 allowable, Applicants respectfully request the Examiner rejoin claims 10-12 for substantive examination.

Claim 10 is a process claim that depends on the transformed cell of claim 8. In finding claim 8 allowable, rejoinder and allowance of claim 10 are respectfully requested, at least because claim 10 incorporate each recitation of claim 8.

Claims 11 and 12 are process claims that depend on the polynucleotide of claim 1. In finding claim 1 allowable, rejoinder and allowance of claims 11 and 12 are respectfully requested, at least because claims 11 and 12 incorporate each recitation of claim 1.

Applicants respectfully submit that the present application, including claims 1-13 and 16, is now in condition for allowance. Applicants appreciate the effort of the

Examiner. An early Notice of Allowance of all pending claims 1-13 and 16 is thus respectfully requested. The Examiner is invited to contact Applicants' undersigned attorney by telephone if the Examiner wishes to discuss any aspect of the application to advance the prosecution.

Respectfully submitted,

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